

CLAIMS

What is claimed is:

- 1 1. A platform comprising:
2 a processor; and
3 a memory coupled to the processor, the memory including an isolated memory
4 area containing a file checker executable by the processor, the file checker including (i) a
5 file analyzer to perform a scan operation on a file to produce a scanning result and (ii) a
6 signature generator to produce a digital signature chain including a digital signature
7 having the scanning result.
- 1 2. The platform of claim 1, wherein the scan operation by the file checker is a
2 virus detection function.
- 1 3. The platform of claim 1 wherein the incoming file is prevented from being
2 executed if the verified digital signature chain indicated an unacceptable file integrity.
- 1 4. The platform of claim 1, wherein the incoming file is accessed if the
2 verified digital signature chain indicates acceptable file integrity.
- 1 5. The platform of claim 1 further comprising a first control unit coupled to
2 both the processor and the memory.
- 1 6. The platform of claim 5 further comprising a second control unit coupled
2 to the first control unit and a token bus interface.
- 1 7. The platform of claim 6 further comprising a non-volatile memory coupled
2 to the second control unit.
- 1 8. The platform of claim 6 further comprising input/output devices coupled
2 to the second control unit.

1 10. The platform of claim 1 wherein the signature generator comprises:
2 an encryptor to encrypt the scanning result using a signature key; and
3 a time stamper coupled to the encryptor to time stamp the encrypted result using a
4 time indicator, the time stamped encrypted result corresponding to the digital signature.

1 11. The apparatus of claim 10 wherein the time indicator is one of a calendar
2 time and a version identifier of the scanner.

1 12. The apparatus of claim 1 wherein the file is code.

1 13. A method comprising:

2 determining whether a digital signature chain accompanies a file to be accessed;

3 and

4 verifying the digital signature chain of the file by determining (i) whether the file

5 has an acceptable file integrity, and (ii) whether each signatory providing the digital

6 signature chain is authorized.

1 14. The method of claim 13 further comprising:
2 precluding access to the file if the file has an unacceptable file integrity.

1 15. The method of claim 14 further comprising:
2 precluding access to the file if at least one signatory of the digital signature chain
3 is unauthorized.

1 16. The method of claim 13, wherein prior to verifying the digital signature
2 chain, the method further comprising:
3 entering into isolated execution mode if the file does not have a corresponding
4 digital signature chain;

5 analyzing an integrity of the file; and
6 issuing the digital signature chain if the file has an acceptable file integrity.

1 17. The method of claim 16 further comprising:
2 issuing the digital signature chain with an indication that the file integrity is
3 unacceptable if the integrity of the file is analyzed and determined to be unacceptable.

1 18. The method of claim 13 further comprising:
2 opening the file if the verified digital signature chain indicates an acceptable file
3 integrity; and
4 refusing to open the file if the verified digital signature chain indicates an
5 unacceptable file integrity.

1 19. A computer program embodied in a processor readable medium and
2 executable by a processing unit, comprising:
3 code for determining whether a digital signature chain accompanies a file to be
4 accessed; and
5 code for verifying the digital signature chain of the file by determining (i) whether
6 the file has an acceptable file integrity, and (ii) whether each signatory providing the
7 digital signature chain is authorized.

1 20. The method of claim 19 further comprising:
2 code for precluding access to the file if the file has an unacceptable file integrity.

1 21. The method of claim 19 further comprising:
2 code for precluding access to the file if at least one signatory of the digital
3 signature chain is unauthorized.